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10/782,029	02/19/2004	Michael Scott Prodoehl	9548	5615

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EXAMINER
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COLE, ELIZABETH M

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1794

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/782,029  
Filing Date: February 19, 2004  
Appellant(s): PRODOEHL ET AL.

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C. Brant Cook  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 7/5/07 appealing from the Office action mailed 10/30/06.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

**WITHDRAWN REJECTIONS**

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner. The 102 portion of the 102/103 rejection of claims 1-2, 4-6, 10-12, 16-17, 19, 21-22, 25-27, 30.

As correctly noted by Appellant, the examiner inadvertently omitted claim 10 from the statement of the rejection at page 2 paragraph 3 of the final action mailed 10/30/06. The body of the rejection specifically addressed the limitations of claim 10 in lines 8-9 of paragraph 3.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6,328,850

Phan et al

12-2001

#### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-2, 4-6, 10-12, 16-17, 19, 21-22, 25-27, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trokhan, U.S. Patent No. 4,637,859.

Trokhan discloses a tissue product having a basis weight of 9-95 gsm, wherein the tissue comprises an undulating surface of low density pillow regions and high density knuckle regions. See col. 19, line 67 – col. 20, lines 14. The basis weight of the sheet can either be uniform or different but the densities of the two regions are always different so that the pillow regions have a lower density than the knuckles. See col. 19, lines 1-53. The tissue can further comprise wet strength additives. See col. 4, lines 23-59. With regard to the fiber length set forth in claims 16 and 30, it is noted that bleached northern softwood kraft pulp has an average fiber length of approximately 1.07 mm. See col. 5, lines 45-52 of Skoog et al, U.S. Patent No. 6,17,370. It is noted that Skoog et al is not part of the rejection but is cited to show the length of the fibers already disclosed in Trokhan. Further, Trokhan teaches that bagasse fibers can also be used. It is noted that bagasse fibers have a length of approximately 1.7 mm. See “Fiber Morphology and New Crops”, table 1. As with Skoog, this reference is relied on as evidence to show the length of the fibers already taught by Trokhan. Trokhan teaches that the tissue product can further comprise additional layers. See col. 21, lines 25-29. With regard to the claimed modulus to tensile strength ratio, aspect ratio and maximum stretch, Trokhan et al does not disclose these values per se, however, Trokhan et al does appear to disclose the same general structure. Further, Trokhan teaches that the properties of the resulting tissue such as absorbency, softness, tensile strength, burst strength, bulk (apparent density) and, ability to stretch in the machine

Art Unit: 1794

direction can be controlled by varying the pattern and surface geometry of the forming member on which the tissue is produced. See col. lines 4-19; col. 7, line 58 – col. 8, line 36, col. 9, line 37 – col. 10, line 64. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected the appropriate patterns and geometry through the process of routine experimentation in order to optimize the properties of absorbency, bulk, softness, tensile strength, etc.

Claims 13-14, 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trokhan, U.S. Patent No. 4,637,859 as applied to claims 1-2, 4, 6, 10-12, 16-17, 19, 21-22, 25-27, 30 above, and further in view of Phan et al, U.S. Patent No. 6,328,850. Trokhan discloses a tissue product as set forth above. Trokhan differs from the claimed invention because Trokhan does not disclose that the tissue can have more than one layer wherein fibers having a length of greater than equal to 1.5 mm is positioned between two layers having an average fiber length of less than 1.5 mm. Phan et al discloses a multi-layered paper product wherein an inner layer may comprise relatively long fibers having a length of 2.5 mm or greater which is sandwiched by outer layers comprising fibers having a length of less than 1.5 mm. See col. 4, lines 37 – col. 3, line 10. Phan teaches that this distribution of fiber lengths in a tissue product produces a tissue having excellent softness, strength and bulk. See col. 2, lines 55-67. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the paper sheet of Trokhan so that it had fibrous layers having the fiber lengths taught by Phan, motivated by the expectation that this would produce a tissue having excellent softness, strength and bulk.

**(10) Response to Argument**

Appellant argues that Trokhan does not teach the claimed aspect ratio because in col. 8, lines 28-36, the aspect ratio of the forming member in the most preferred embodiment is 1.28 rather than the claimed aspect ratio of greater than 1.5. However, while the Examiner agrees that Trokhan does not specifically disclose the claimed aspect ratio and has withdrawn the 102 anticipation portion of the rejection, the Examiner maintains that Trokhan teaches that the forming member may have openings of random or uniform shape and random or uniform distribution, (col. 8, lines 1-4), that the shapes can be circular, oval, or polygons of six or fewer sides, (col. 8, lines 5-11) and that the interaction between the geometry of the openings and the pattern of the network, as well as the interactions between the various fiber parameters such as length, shape and orientation, combine to produce the properties of the tissue product. See col. 9, lines 36-50. Therefore, it would have been obvious to one of ordinary skill in the art to have selected the size and geometry of the openings, the particular network pattern employed, as well as the particular fiber length, shape and orientation through the process of routine experimentation in order to arrive at a tissue product having the desired properties of softness, density, absorbency, etc.

Appellant argues that Trokhan does not disclose that its tissue products have a maximum stretch of less than 15% and that Trokhan teaches at Table 22 that the products have maximum stretch of greater than 15%. However, Table 22 illustrates various examples and the disclosure of Trokhan is not limited to what is shown in Table 22. Further, Table 22 shows elasticity of less than 15% in the cross direction, (CD), and also includes values less than 12.5%. Finally,

Art Unit: 1794

Trokhan teaches that the elasticity of the finished product depends on the pattern selected. See col. 2, lines 10-16. Therefore, the person of ordinary skill in the art would have recognized that the degree of stretch or elasticity is a result effective variable and would have been able to select a pattern which produced the desired elasticity through the process of routine experimentation.

With regard to the combination of Trokhan and Phan, Appellant argues that since Trokhan does not teach the claimed aspect ratio or elasticity, that the combination of Trokhan and Phan do not render the claimed invention obvious. The arguments regarding the aspect ratio and elasticity are addressed above.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Elizabeth M. Cole/  
Primary Examiner, Art Unit 1794  
Elizabeth M. Cole

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